



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

COUNTWAY LIBRARY



HC 1Y6D /

ADDRESS
TO THE
BOSTON SOCIETY OF NATURAL HISTORY,
BY
JOHN C. WARREN, M.D.

Hand
973

[Faint, illegible handwriting]

William S. Bullard, Esq
with the respects of
The Author

William B. Mallory
with the
the

A D D R E S S

TO THE

BOSTON SOCIETY OF NATURAL HISTORY.

BY

JOHN C. WARREN, M.D.

PRESIDENT OF THE SOCIETY.



BOSTON:

PRINTED BY JOHN WILSON & SON,

22, SCHOOL STREET.

1853.

THIS ADDRESS was to have been delivered to the Society at its Anniversary Meeting, on the first Wednesday in May, 1853; but, owing to the indisposition of the Author, could not be pronounced, and has therefore been published for the use of the Society.

BOSTON MEDICAL LIBRARY
IN THE
FRANCIS A. COUNTWAY
LIBRARY OF MEDICINE

A D D R E S S.

IN the earlier years of our Society, it was customary to have an Annual Address. This was generally employed in giving some account of its origin, and in noticing interesting occurrences in its recent history. No discourse having been delivered since June, 1850, I propose to notice the proceedings from that time; and, as some of our present members have lately united with the Society, I think it proper to call their attention to a few of the circumstances of its formation and history. Within the last six or seven years, two very interesting discourses have been delivered, one by Dr. Gould, and the other by Dr. Storer, giving an account of the formation and development of the study of Natural History in this part of the country. These valuable documents still remaining in manuscript, we may with propriety make use of the facts they record. I shall also take a view of the circumstances which

preceded the birth of our Association, and prepared the way for its growth and enlargement; closing with some remarks on the improvements the Society have it in their power to make.

Among the earliest efforts for the cultivation of Natural History in this city are found some essays in the Memoirs of the Academy of Arts and Sciences. This Association was formed in 1780, in the midst of revolution and war. Such an effort certainly does great credit to the spirit and magnanimity of our fathers, who, while their lives and property and political existence were still in a doubtful state, summoned resolution to begin the cultivation of the arts of peace and scientific improvement. The first volume of their Memoirs, published in 1785, contains a paper by Rev. Dr. Cutler on indigenous plants, and one by Professor Williams on earthquakes. In those immediately succeeding, we find an account of the interesting geological deposit at Gay Head, which, if not highly scientific, is quite amusing. The writers, Rev. Dr. Samuel West, then of Dighton, and Dr. William Baylies, of Taunton, made an excursion to Gay Head together, and were the first to describe the picturesque appearance formed by its different-colored clays, marls, &c. They were of opinion that a volcano had existed there, and even that its fires had been visible within

the memory of man. They give a traditionary account, derived from the Indian natives, of the ancient deity which presided over the Island of Martha's Vineyard, the Indian name of which is not given, and of his passage to the lower regions, on the establishment of Christianity among the natives, probably through the volcano. There is, in the same volume, an account of the discovery of very large bones near the Walkill, in the vicinity of Newburgh: these bones were evidently those of the Mastodon. They were mostly in such a decayed state as not to be susceptible of very accurate description; but there is a good account of some of the teeth, with such speculations, derived from their character, as to lead the writers to the belief that the animal to which they belonged was of a carnivorous nature, — a mistake common to them and the celebrated John Hunter.

In the third volume of the Academy's Memoirs, published in 1809, is a valuable article on the geology of the vicinity of Boston, by Monsieur Godon. The author was compelled to leave Paris by domestic trouble; and, coming to Boston with letters which proclaimed his merit as a mineralogist, he was immediately noticed, and a small class formed for a course of geological and mineralogical lectures, by which he hoped to gain the means of support. He made his

lectures practical by carrying the class to such localities as presented interesting subjects, and thus inspired a taste for the science, which many of them retained through life. After residing two or three years in the vicinity of Boston, he removed to Philadelphia, with the hope of prosecuting and enlarging his labors; but soon fell into a morbid state, which, after preying on him a long time, terminated fatally.* The results of his labors near Boston are embodied in the paper alluded to, and will always continue a memorial of him who planted in this city the seeds of mineralogical science.

Though valuable papers were occasionally contributed to the Memoirs of the Academy, and though considerable efforts were employed to give interest to its meetings, a long time was required to bring forward a sufficient number of zealous individuals to impart activity and steadiness to its operations. Within a few years, however, the talents of its officers, and the industry of its members, have elevated it to a very high rank among similar institutions. Its volumes are rich in scientific treasures of the best kind; its library is large and valuable; its meetings frequent and attrac-

* The death of the widow, Madame Godon, took place a few months since, after a life marked with sorrow and misfortune, but brightened in its last days by the unexpected bequest of a comfortable property. Some of his descendants reside in Philadelphia.

tive; and its efforts, in various directions, for the cultivation of science, most honorable and useful.

In 1801 a private society was formed for the study of Natural Philosophy and Natural History. The members of the original Association were Hon. John Lowell, Hon. John Davis, President J. Q. Adams, President Kirkland, President Quincy, Rev. Dr. Emerson, S. P. Gardner, Esq., Drs. James Jackson and John C. Warren. The additional members were Judge Jackson, Hon. Richard Sullivan, Hon. William Sullivan, Hon. Francis C. Gray, Joseph Tilden, Esqs., and Dr. J. C. Howard. This Society procured philosophical apparatus. It met weekly; and each member, with some exceptions, gave a lecture, usually on Natural Philosophy, sometimes on Natural History, and particularly Botany. It continued until 1807, when the members, having been called to other pursuits, determined to give their apparatus partly to the Athenæum, and partly to the Professor of Chemistry in Cambridge University, Dr. Gorham.

In 1815 the Boston Linnæan Society was formed. The principal gentlemen who moved in this Association were Hon. John Davis; Professors Jacob Bigelow, George Hayward, John Ware, and Walter Channing; Wm. S. Shaw, Hon. F. C. Gray, Nathaniel Tucker, Octavius Pickering, and B. A. Gould, Esqrs.; Dr.

Enoch Hale. Under the auspices of these gentlemen, all of whom had been distinguished by a love of natural science, a very valuable collection was made of objects of Natural History. This collection, serving as a nucleus for the assemblage of numerous objects from different countries, at length grew so large and expensive that the members were obliged to relinquish it. When it expired, its riches were distributed to Harvard University and the Boston Museum, and some of them ultimately reached the shelves of our Society. I cannot omit the expression of my gratitude for the use of many valuable objects of science belonging to this collection, which have presented themselves in the course of my professional career.

These dawns of science gradually became more and more extended, and lighted the way to the formation of our Society in 1830, at which period an increasing taste for the study of Natural History led to more enlarged views of its importance, and produced a disposition to place it on a more permanent basis. The gentlemen particularly distinguished in this labor were Simon E. Greene, B. D. Greene, George B. Emerson, Theophilus Parsons, Esqs.; Rev. Dr. Greenwood; Drs. Binney, Channing, Hayward, and Ware. These, with others, united in the preliminary labors for the formation of our Society, and had soon the

pleasure to see the foundation of an institution which promised permanence and usefulness. Among these, Mr. Greene, Mr. Emerson, and Dr. Binney, were Presidents of the Society. Mr. B. D. Greene, Mr. Emerson, and Dr. Binney, were also distinguished among the contributors. The first meetings were monthly; these were soon increased to semi-monthly assemblies, and have continued on that plan to the present time. The aid of public lectures was called in to propagate among the public a desire for studying the objects of the animal and the vegetable creation, and for obtaining the means to assist in the collection of these objects. They were at first eminently successful, but were ultimately interrupted by the formation of a taste among the people for courses of a more popular description. Previously to this period, as early as the year 1810, I had occasionally given lectures on some points of Anatomy to small assemblies of ladies and gentlemen; afterwards to Societies, and finally to the Legislature. Drs. Gorham and Bigelow also gave very successful lectures on Chemistry and Botany.

My occupations, in its earlier periods, prevented me from uniting in its labors, though I joined the Society, and expressed my cordial sympathy with the first founders; promising, if ever opportunity should pre-

sent, I would take an active part in advancing its designs. I often visited the collection in order to obtain information which could be procured in no other quarter, and thus had opportunities of witnessing its progressive usefulness, and of perceiving its importance to the public. So that afterwards, when applied to, I agreed to add my labors to those of the active friends of the Society, in obtaining a better situation for its collection, and more ample means for its enlargement.

A path, however, had been already opened by the untiring efforts of a number of our colleagues; and the works of Drs. Binney, Gould, Storer, Mr. Teschmacher, and others, had already shown the many advantages to be obtained from the cultivation of Natural History. The liberal spirit of our fellow-citizens, once put in motion by the efforts of these and other gentlemen, did not cease its action until the great demands of the Society had been attained. The result was the valuable and beautiful collection which we see gathered around us; the excellent library* which fills our shelves; the solid and secure edifice,

* The Republican Institution in this city, having discontinued its meetings, proposed to deposit their library with that of the Society, on the condition, that their members should have access to the united library. This union has been happily accomplished, to the mutual advantage of the two Societies; and the whole number of volumes, thus united, amounts to about four thousand.

previously consecrated to Science,* which contains and accommodates all these objects. Besides the above-named gentlemen who have contributed to the formation and reputation of our Society, we may mention among others the names of Courtis, Parker, Dr. Boot, Col. Perkins, Hon. John Welles, Samuel Appleton, Nathan Appleton, William Appleton, Jonathan Phillips, Edward Phillips, Theodore Lyman.

Another class of gentlemen who have contributed directly to the objects of the Society, — the enlargement of a knowledge of nature, and increase of our collection, — especially demand notice: — Professor Wyman; Drs. Binney, Gould, C. T. Jackson, J. B. S. Jackson, the Storers, Shurtleff, Cabot, Kneeland, Burnett; Messrs. Teschmacher, Ayres, Bouve, and Stimpson. I might mention many others; but their names will appear in the record which accompanies this sketch.

While we admire the perseverance and the science which animated our own members, we cannot omit to mention the powerful impulse received from some of our auxiliary colleagues. At the head of these was

* The building now employed by the Boston Society of Natural History was erected in 1816 for the medical lectures in Harvard University. More space being required for the accommodation of that Institution, a new edifice was erected in another situation, and that we occupy was obtained for the purposes of this Society.

the illustrious Professor Agassiz, who, quitting the country which honored him, came to us to investigate new fields of research, to inspire us with a taste for the sciences he had so successfully cultivated, and to aid us in following where he led the way. The eloquent and distinguished geologist, Professor Rogers, has bestowed great benefits on our Society by the vast information he has so long and so often poured out. To these we must add the names of the learned Desor, Guyot, and Girard.

I shall now take some notice of the published proceedings of the Society since the last annual discourse. This was delivered by Rev. Z. Thompson, and the subject selected by him was the Geology of Vermont.

ABSTRACT OF PROCEEDINGS.

JUNE 5, 1850.

Address by Rev. Zaddock Thompson, Vt.
Prof. Agassiz's Classification of some of the Acephalous Mollusca.

JUNE 19.

Mr. Girard. — On Genus Cottus.
Rev. Z. Thompson. — On Pike of Vermont.
I. S. Davis's Letter to Dr. Durkee on Snow-worms.
Dr. Gould. — Shells of Exploring Expedition.

Dr. Burnett. — Crystals of Phosphate of Magnesia and Ammonia in Human Spleen.

Dr. Cabot. — Ibis Guarauna recent in New England.

Letter read from the President, announcing Donation of Casts of Himalaya Fossils, from East India Company, through Hon. Abbott Lawrence; *e. g.* Elephant's Head, Mastodon, &c. Vote of thanks to Society and Minister.

JULY 3.

Dr. Burnett. — On Naviculæ and Dissemination of Algous Plants.

Dr. C. T. Jackson. — On Red Oxide of Zinc and Franklinite.

Donation. — Living Trionyx Ferox and Emys Insculpta, from Rev. Z. Thompson. Polished Freestone from Acadia Quarry, at Pictou, Nova Scotia, by Watson Freeman, Esq. Copper-ore from Valparaiso, by J. M. Rowell, of Lynn.

AUG. 7.

President invited the Members to visit his Museum in Chestnut-street, and compare the two Mastodons.

M. Vattermare. — Society's Sharks accepted by Museum Natural History, Paris. Minerals from Nantes. Catesby's Natural History of South Carolina. Letter of Instructions.

Prof. Wyman. — Fossil Remains of Seals from the Miocene of Virginia (only deposit with the exception of South Berwick, Maine).

Dr. C. T. Jackson. — Specimens, showing Extent of Tertiary Deposit, from Duxbury.

Dr. Hitchcock and Jackson on Pot-holes.

Dr. Burnett. — On the Distinct Formation of Types of Animals derived from Parasites.

Dr. C. T. Jackson, at Franklin, N. J., in Labrador Felspar had found Allanite, as in Swedish ores.

Committee to memorialize Congress for a Corps of Naturalists to Mexican Boundary Commission.

Donations. — Rallus Crepitans and Tringoides Macularia from Theodore Lyman, Esq. Skeletons of Cervus Virginianus and Castor Fiber. A Texan Agama, by F. Vinton, of East-

port, Maine. A large Bill-fish, from Pictou, by B. H. Norton. Coral from E. Wigglesworth, Esq. A St. Domingo Terrapin by Mr. Couthouy.

SEPT. 4.

Mr. H. R. Storer. — On the Fishes of Nova Scotia and Labrador.
Prof. Wyman. — On Embryology of Murre.

Memoir of Baron Delessert.

Dr. Durkee. — Fossil Cetacean Bones of Zeuglodon, from Washington County, Alabama. Ditto, Cure of Rattlesnake-bites.
Donations to Ornithological Cabinet. Also Birds from San Francisco, from James C. Leighton, Esq.

OCT. 2.

Donations to Ornithological Cabinet, from various sources.

Mr. Stimpson. — Two New Species Philine.

Dr. Gould. — A Donation of American Algæ, from M. Lesqueux. A Letter from Sir Charles Lyell on the Hippopotamus, received in England.

Dr. J. M. Warren's Case of Ixodes.

Dr. C. T. Jackson. Age of Sandstones in United States.

OCT. 16.

Prof. Agassiz. — Age of Sandstones continued.

Dr. Jackson. — Ditto.

Mr. Wells. — Ditto. Connecticut.

Dr. Buckminster Brown. — Spheria Robertsii.

Prof. Agassiz. — Rhacostoma Atlanticum.

Dr. Gould. — Shells of Exploring Expedition.

Mr. Girard. — Development of Planocera Elliptica.

Prof. Agassiz. — Resemblance of Medusæ and Echinoderms.

Prof. Wyman. — Blind Animals from Mammoth Cave.

Mr. Desor. — On the Indian Mode of preserving Venison and Pemmican without Salt.

Donations from Theodore Lyman. Schinz's Sandpiper and Scarlet Tanager. \$10 from G. H. Shaw. Skeleton of Cervus Dama.

Nov. 6.

Dr. Warren announced Forty-one Specimens of Casts, mostly of Mammalia, from Hon. East India Company. Vote of thanks.
Mr. Charles Hoffman, of Salem. — Skull of a Hippopotamus, from West Africa.

Nov. 20.

Dr. Warren. — Additional Casts from East India Company. Crania of Quadrumana, Carnivora, Pachydermata, &c.
Prof. Agassiz. — Soft Parts of American Fresh-water Mollusks.
Dr. A. A. Gould, in behalf of J. G. Anthony. — Sixteen Species of Melania.
Mr. Charles Girard. — Planarian Worms, &c.
Donation. — Dr. J. M. Warren, Brain Coral.

Dec. 4.

Dr. Warren. — Remaining Casts from East India Company, and the following List of the entire Collection : —

Dinotherium Indicum	. . . . .	Part of Lower Jaw	. . . . .	Perim Island.
" "	. . . . .	Vertebra	. . . . .	" "
Elephas Insignis	. . . . .	Cranium	. . . . .	Sivalik Hills.
" Planifrons	. . . . .	Grinder	. . . . .	" "
" Nomadicus	. . . . .	"	. . . . .	Nerbudda.
"	. . . . .	First Vertebra	. . . . .	Sivalik Hills.
" Cliftii	. . . . .	Grinder	. . . . .	Ava.
Mastodon Perimensis	. . . . .	Cranium	. . . . .	Perim Island.
" "	. . . . .	Grinder of Lower Jaw	. . . . .	" "
" Sivalensis	. . . . .	Part of Cranium	. . . . .	Sivalik Hills.
" "	. . . . .	Grinders	. . . . .	" "
" Latidens	. . . . .	Grinder, &c.	. . . . .	" "
Hippopotamus Palaeindicus	. . . . .	Part of Lower Jaw	. . . . .	Near Nerbudda.
" Sivalensis	. . . . .	Cranium	. . . . .	Sivalik Hills.
" "	. . . . .	Lower Jaw	. . . . .	" "
" Palaeindicus	. . . . .	Cranium	. . . . .	" "
Rhinoceros	"	"	"	"
Sus Giganteus	"	"	"	"
Equus Nomadicus	"	"	"	Nerbudda.
" Sivalensis	"	"	"	Sivalik Hills.
" "	"	Lower Jaw	"	"
Sivatherium Giganteum	"	Cranium	"	"
" "	"	Horn	"	"
" "	"	Cranium	"	"
Mastodon Angustidens	"	Grinder	"	"

Mastodon Latidens	Grinder	Sivalik Hills.
„ Longirostris	„	„ „
Merycopotamus Dissimilis	Cranium	„ „
„ „	Lower Jaw	„ „
„ „	Humerus	„ „
Chalicotherium Sivalense	Part of Upper Jaw	„ „
„ „	Part of Lower Jaw	„ „
Hippohyus Sivalensis	Cranium	„ „
Equus „	Part of Cranium	„ „
„ „	Vertebra	„ „
Hippotherium Antilopinum	Part of Lower Jaw	„ „
Sivatherium Giganteum	Tarsal Bones	„ „
Camelopardalis Affinis	Vertebra	„ „
Capra	Part of Cranium	„ „
Sivatherium Giganteum	Vertebra	„ „
„ „	Fragment of Jaw	„ „
„ „	„ „ Femur	„ „
„ „	Anterior Extremities	„ „
Camelus Sivalensis	Cranium	„ „
Camelopardalis	Humerus	„ „
Bos	Cranium	Nerbudda.
„	„ and Horns	„ „
Ursus Sivalensis	„	Sivalik Hills.
„ „	Femur	„ „
Emys Hamiltonoides	_____	„ „
„	_____	„ „
Colossochelys Atlas	Humerus	„ „
„ „	Episternum	„ „
Leptorhynchus Giganteus	Muzzle	„ „
„ Gangeticus	Part of Cranium	„ „
„ „	„ „	„ „
Crocodylus Biporcatus	„ „	„ „
Capra	„ „	„ „
Felis Palæotigris	Cranium	„ „
„ Cristata	„	„ „
Canis	„	„ „
„	„	„ „
Hyaena	„	„ „
Ursus Sivalensis	Lower Jaw	„ „
Enhydriodon Ferox	Cranium	„ „
„ „	„	„ „
„ „	„	„ „
Machairodus Sivalensis	„ Fragment	„ „
„ „	„ „	„ „
Simia	Part of Lower Jaw	„ „
Aves (Family, Struthionidæ)	Fragment of Tibia	„ „
Pisces (Family, Siluridæ)	Fragment	„ „
Lutra Palæindica	Cranium	„ „
Colossochelys Atlas	„	„ „
Crocodylus Biporcatus	Part of Cranium	„ „
Rhinoceros Platyrhinus	Cranium	„ „

- Dr. Gould. — Seventeen New Species of Algæ from United States Exploring Expedition.
- Mr. Perley. — Fisheries of Bay of Fundy. On Elevation and Depression of Newfoundland, and other large Tracts. Observations of others.
- Mr. Desor. — On Swamps bordering the Western Rivers.

DEC. 18.

- Mr. Desor. — On the Parallelism of Mountain Chains in America.
- Donations to Ornithological Department. — Twenty-six Birds from Mr. Algernon Coolidge. A Red-throated Loon from T. Lyman. Several valuable Florida Specimens from Dr. Henry Bryant. Minerals and Fossils of New Brunswick from Mr. Perley.

JANUARY, 1851.

- J. M. Warren. — Remarks on Aztec Children.
- Mr. T. Bouvé. — On Fossil Echinoderms from the Lower Tertiary Rocks of Georgia.
- Mr. Alger exhibited Copper from Lake Superior.

JAN. 15.

- Mr. W. O. Ayres. — On the Holothuridæ.
- Mr. Stimpson. — Post-pliocene Fossils of Chelsea.
- Prof. Wyman. — Shell and Sternum of *Trionyx Ferox*.

FEB. 5.

- Mr. Ayres. — Continuation of Holothuridæ.
- Mr. Stimpson. — Twenty new Species Testaceous Mollusca, Massachusetts Bay.
- Mr. Charles Girard. — A new Genus of American Cottoids.
- M. Lesquereux. — On Growth of Peat-bogs.
- Dr. A. A. Hayes. — On Specimens of Quartz.
- Prof. Wyman. — *Emya Punctata*.

FEB. 19.

- Mr. Ayres. — Continuation of Holothuridæ.
 Prof. Wyman. — Structure of Hippopotamus Teeth.
 Mr. Desor. — Laurentian Deposit, Fossils.

MARCH 5.

- C. Girard. — Organs of Vision, and the Nervous System in the Embryo of Ascidia.
 Mr. Ayres. — Vandellia Cirrhosa, Psolus.
 Prof. Rogers. — Plication Theory.
 Mr. Desor. — Height of Laurentian Deposit.
 Mr. Thompson. — Wood and Elephant Deposits from Burlington and Rutland.
 Mr. Ayres. — Aspidophorus Monopterygius.

MARCH 19.

- Prof. Wyman. — Spinal Cord in Bats.
 Mr. Ayres. — Holothuria Squamata, and Holothuridæ generally.
 Mr. H. R. Storer. — Etheostoma.
 Dr. C. T. Jackson. — Pitch-stone of Lake Superior.
 Mr. Desor. — Dunes on the Shores of the Upper American Lakes.
 T. M. Brewer. — On Grossbeak and Redpoll.

APRIL 2.

- W. O. Ayres. — Stereoderma, Holothurian.
 Dr. C. T. Jackson. — Botryoidal Fibrous Phos. Lime.
 Mr. Desor. — Parallelism of the Quaternary Deposits of Europe and America.

APRIL 16.

- Mr. Ayres. — Botryodactala, Holothurian.

MAY 7.

- Annual Meeting. — Curator's Reports. Important.
 Mr. Ayers. — Thyonidium elongatum, Holothurian.
 Mr. Teschemacher. — On Scarcity of Platina.

MAY 21.

- Death of Dr. S. G. Morton, &c.
 Mr. Ayres. — *Psolus Granulatus*.
 Dr. C. T. Jackson. — Coal from Bay of Fundy.
 Prof. Wyman. — On Distomata.
 Mr. Bouvé. — Bone Breccia from Candia.

JUNE 4.

- Mr. Stimpson. — On *Holothuræ*.
 Mr. Whittemore. — On *Pisidium Ventricosum*.
 Mr. Wells. — Specimens of Ohio Soil.
 Donations. — Fossils from Sackett's Harbor, by Mr. C. Brown.
 Four Florida Birds from F. C. Browne. An Owl from Mr. Sprague.

JUNE 18.

- Mr. Ayres. — On *Holothuridæ*, *Thyonidium*.
 Dr. Durkee. — Snake vomited.
 Dr. Burnett. — *Cicada septendecim* (Locust).
 Dr. C. T. Jackson. — *Sigillaria* and *Stigmaria* in New Brunswick Coal.
 Donation. — Mr. Alger, thirty Minerals. Dr. Burnett, twelve do. from Natural History Society of West Chester, Pa. and from South Carolina.

AUG. 6.

- Mr. Teschemacher. — Vegetation in Coal.
 Mr. Bouvé. — Progression of Species.
 Dr. Smith. — On Lignite.
 Prof. Wyman. — Brain and Spinal Chord of Lumpfish. Cranium of a Flathead Indian.
 Dr. Kneeland. — Homologies of Odontoid Process.
 Dr. Cabot. — Anatomy of Mina.
 Donations. — Mr. Henry Rice, Coal Fossils of Attleboro'. Capt. Garland, Vesuvius; Shells West Africa.

SEPT. 3.

- Dr. Burnett. — Spermatology and Classification.
 Dr. Gould. — California Shells, and different from those of Eastern Coast.
 Dr. W. I. Burnett's Donation. — A Jar of Fishes and Reptiles from New Hampshire.
 Prof. Hall. — Importance of Dr. Gould's Remarks.

SEPT. 17.

- Mr. Stimpson. — Fauna of New England, Coast of Maine. Remarks by others.
 Dr. Burnett. — On Muscular Contraction.
 Mr. Ayres. — Sclerodactyla Briareus.
 Donations. — Snake, Insects, Birds of California, from T. G. Cary, junior.

OCT. 1.

- Resolution on Dr. Warren's Return.
 Dr. Burnett. — Sexual Organs of Spiders.
 Prof. Wyman. — Bursting of Capsule of Garden Balsam. Microscopic Examination of Brain and Spinal Chord of Frogs.
 Mr. Wells. — On Origin of Stratification.
 Miss M. H. Morris. — Letter on Seventeen-years' Locust.
 Dr. Burnett's Observations, do.
 Donation. — Skin of South American Serpent and Birds, from Dr. Cragin, Surinam.

OCT. 16.

- Reply of President, by Letter, to Congratulations.
 Mr. William Stimpson. — Monograph on Cœcum.
 Dr. Burnett. — On Fauna of Pine Barrens of South Carolina.
 Mr. Ayres. — Stephanaster, Star-fish.
 Dr. Wyman. — Nervus Vagus of Tadpoles.
 Donations. — Mr. Stimpson, Animals of the Shells of New England (forty). J. G. Anthony, of Cincinnati, five Species from Tennessee. Dr. Cabot, from various sources. Mr. C. C. Hayes, of South Berwick, Maine, a Jar of Reptiles.

Nov. 8.

Remarks of President on Foreign Collections.

Prof. Wyman. — Anatomy of Shark.

Dr. Burnett. — On Bodo.

Donations. — Reptiles from Dr. Cragin, Surinam. Butterflies from Mrs. Stodder. Four Species of *Cyclas*, from T. J. Whittemore, Cambridge. Birdsnests from H. R. Storer.

Nov. 19.

Dr. Kneeland. — On human Lumbar Rib.

Donation (President). — Cast of Dr. Ducatel's Mastodon Tooth.

Dr. Storer. — Remarks on President's Donation.

Mr. Desor and Dr. Jackson. — On Fossil Rain-drops.

Mr. Ayres. — Distribution of Echinodermata, and Structure of Ophiuridæ.

Donations. — Henry Rice, of Attleboro', Coal-fossils from Mansfield, Mass.

JULY 2.

H. R. Storer. — Extension of Range of Reptiles.

Dr. C. T. Jackson. — Five new Fossil Fishes, *Palæoniscus*, Fossil Plants of the Albert Coal-mine.

Mr. Ayres. — *Chirodota Arenata*.

Donations. — Mr. H. R. Storer, Reptiles. Family of Dr. Amos Binney, his Work on Helices.

JULY 16.

Dr. Burnett. — On Reptilia of Georgia.

Mr. Ayres. — On *Holothuridæ*.

Donations. — Mr. H. R. Storer, *Salamandra Fasciata* and *S. Erythronata*. Dr. W. I. Burnett, South Carolina Reptiles.

AUG. 20.

Prof. Wyman. — Brain and Spinal Cord of *Lophius Americanus*.

Dr. C. T. Jackson. — Daguerreotype of Fossil Fish.

DEC. 3.

Mr. Teschemacher. — Stigmaria in Anthracite.

Mr. Prime presented new Species of Cycladidæ.

Prof. Wyman. — Embryo of Skate.

Mr. Desor. — Foster and Whitney's Report on the Mineral Lands of Lake Superior.

Donations. — Mr. Desor, Geological Map of Lake Superior. Dr. T. M. Brewer, Birds' Eggs. Mr. Theodore Lyman, Yellow-breasted Chat, Eggs and Nest. Dr. J. M. Warren, Specimen of Holocanthus. Sir William Jardine, Reptiles.

DEC. 17.

President. — Dinotherium.

Mr. Desor. — On Pedicellariæ.

Prof. Rogers and Dr. Jackson. — Remarks on Coprolites.

Donation. — From Hon. Isaac Davis, Worcester, Brain Coral.

JAN. 7, 1852.

Dr. Kneeland. — Rhinoceros' Horn.

Dr. Lesquereux. — Coal-measures of Ohio.

Dr. Jackson. — Stigmaria Roots of Sigillaria ?

Mr. Desor, Prof. Rogers, Dr. Jackson. — Remarks on the Post-pliocene or Quaternary Formation.

Donations. — W. J. Starr, St. John's, a Box Coal Fossils. Joseph Monds, Norwich, Conn., Animals.

JAN. 21.

Mr. Desor and others. — On Climate.

Mr. Briggs. — On the Oscillation of Sheets of Water in Dams.

FEB. 4.

Mr. Girard. — Two new Genera and two Species Nemerstes.

Dr. Kneeland. — Leanness of the Americans.

Other Gentlemen. — Ditto.

Letter of M. Verneuil. — Various Geological Topics.

FEB. 18.

Prof. H. D. Rogers and Mr. E. Desor. — Geological Age of Coal in United States and France, and Upheaval of Mountain Ranges.

Mr. Stodder. — Iridium found in California Gold.

Donation from Dr. C. T. Jackson. — Third Plate of Fossil Fishes, Coal.

MARCH 3.

Mr. Wells. — Analysis of Soils of Scioto Valley.

Donations. — From Señor Juan Lambeye, his Work on "Birds of Cuba."

MARCH 17.

Mr. Ayres. — A Polyp, *Globiceps Tiarella*, *Batrachus Tau*.

Donations. — From Mr. Uriah Boyden, "Voyage of the *Astrolabe* and *Zelée*," sixteen volumes. Mr. B. P. Poore, a Male Peacock. Mr. Sohier, *Clangula Americana*. Mr. T. Lyman, eleven Ornithological Specimens.

APRIL 7.

Mr. Teschemacher. — On Coniferous Plants in the Coal Period.

Robert Foulis, Esq., St. John's. — Description and Drawings of a large Shark taken in Bay of Fundy.

APRIL 21.

Dr. Kneeland. — *Troglodytes Gorilla*; a Donation from the American Board of Commissioners for Foreign Missions.

Mr. Charles Girard. — Two new Genera and two new Species of *Planaria*.

Mr. W. O. Ayres. — *Synapta Pellucida*.

MAY 5.

Reports of Curators important.

MAY 19.

Dr. Burnett. — *Anolius Carolinensis*.

Mr. Stimpson. — *Axiu Serratus*.

JUNE 2.

Dr. Burnett. — *Ophisaurus Ventralis*.

Mr. Stimpson. — Two new Species of *Ophiolepis*.

Donations. — The Femur, Tibia, and Tarsal Bone of a Gigantic Bird from New Zealand, by Mr. Henry Cross. A Cast of the Fossil Tracks of *Sauropus Primævus*, from Mr. Isaac Lea, of Philadelphia.

JUNE 16.

Dr. Burnett. — Economy of Reproduction in certain Minute Insects.

Mr. Stimpson. — Several new Ascidians on the Coast of the United States.

JULY 7.

Dr. Kneeland. — On the Bones of the *Dinornis*, presented June 2.

Dr. C. T. Jackson. — Analysis of the Body and Scales of *Palæoniscus*.

Dr. Hunter, of North Carolina (introduced by Dr. Gould), displayed a Native Diamond, from Gold-bearing District of North Carolina.

Prof. Wyman. — On Alligator's Teeth.

Donations. — Land-shells from the Gaboon River, Africa, in the name of Rev. Mr. Walker. Specimens of *Unio Collinus* and *Unio Biangulatus*, from Mr. J. G. Anthony, of Cincinnati. A Bottle of Reptiles from Mr. Schaëffer, of Cincinnati. Specimen of *Crotalus Horridus* from Dr. C. C. Holmes, Milton, Mass. A Cast of *Sauropus Primævus*, from Mr. Isaac Lea, of Philadelphia.

AUG. 4.

Donation. — Fifteen Hundred Shells from the Eastern Seas, by Mr. H. T. Parker.

AUG. 18.

Mr. W. O. Ayres. — New Species of *Holothuria*.

Donation. — Jars of Reptiles, &c. from Mr. A. F. Preston.

SEPT. 1.

Dr. Burnett. — Crystalline Lens and its Formation.

Mr. W. O. Ayres. — Two new Ophiuridæ.

Mr. C. J. Sprague. — On Arauja Sericofera.

SEPT. 15.

Observations, by Drs. Burnett and Durkee, on the Fibres of the Crystalline Lens in Man.

Dr. Burnett. — Coloration of Cephalopoda.

Donation. — Reptiles from Southern States, by Dr. Burnett.

OCT. 6.

Letter of Thanks from Professors of the "Musée d'Histoire Naturelle" for the Shark.

By the President. — Cast of Cranium of *Felis Smylodon*, with Historical and Anatomical Description.

A glance at the preceding pages will show that the Society has been in constant activity for the last three years, and that there has been a regular production of observations highly creditable to the industry and the science of our members. It will also show, that the Museum has been regularly enriched with important contributions.

For some years back a very useful Society for the cultivation of Natural History has existed among the students of the University at Cambridge. This Association has regular meetings, and has done much

to implant a taste for natural science in the minds of the young gentlemen.

Among the more recent observations on Geology and Natural History, we may mention the following: First, Exact and extended observations on the coal-fields of this State. These are to be found in a report made to the Legislature, in February, 1853, by President Hitchcock, in which it is shown that the coal of Mansfield extends through no inconsiderable portion of the southern part of this State, and some part of Rhode Island. According to this geological view, there is a regular coal-field of not less than five hundred square miles, the situation and extent of which are indicated by unquestionable phenomena. These observations are of immense value to this part of the country, to which coal is so very important; and it is to be regretted that the attention of the State Government has not yet been directed to the development of these valuable treasures.

Second, Few of the remains of the larger fossil animals have been hitherto discovered in New England; the openings made by railroads are beginning to expose them in various places. Three or four years since, the cut in the Vermont Railroad, through a high mountain in Rutland, brought into view the remains of a fossil elephant, or *Elephas Primigenius*. Ribs,

vertebræ, and a very perfect tooth, were found, some of them in, some under the drift, — a fact which, if it should be confirmed, would be of great geological interest. During the last autumn, a number of Mastodon bones were discovered in a marshy formation in New Britain, Conn.: the greater part were in a state of decomposition, which prevented their removal. Some teeth were sufficiently perfect to determine that they belonged to the Mastodon Giganteus. There were also portions of the head, ribs, vertebræ, and bones of the extremities. They are deposited in the Normal School, under the direction of N. D. Camp, Esq., who has carefully studied and explained them to the members of the school. Very fine fossil teeth of Elephas Primigenius have been lately found in cutting a railroad through Zanesville, in Ohio; and it was thought important portions of the skeleton might be obtained. The geologist, Mr. Foster, being in that vicinity, was very judiciously invited by Mr. Sedgwick to superintend the exhumation; and he wrote to me to say, that, if I would bear the expense, he would prosecute the work, and send me the results. Nothing could be preserved, however, but the teeth, which were perfect, of great size, and formed a complete set of adult teeth, not surpassed by any which are known. These are now in my possession, owing to

the kindness of Mr. Foster and Professor Wyman. The largest tooth weighs sixteen pounds. The species was suspected by Professor Wyman not to be the same as the European *Elephas Primigenius*; but he has undertaken a full investigation of the subject, and will hereafter present us with the result of his inquiries.

The Ornithichnites, or fossil footsteps of extinct birds, are well known to us all. Understanding that the laborious collector, Mr. Marsh, had lately deceased, and that his collection might perhaps be for sale, I took occasion a few days since, when returning from New York, to visit Greenfield, and avail myself of the aid of Dr. Deane, an excellent geologist and learned physician, to examine the collection which he had assisted to form. I cannot attempt to give an idea of the multitude and variety of fossil footprints in this collection, and still less could I display their importance in the history of the ancient world; since they open a page of Palæontology which has hitherto been sealed to us, where we find traces, not only of birds, but of quadrupeds, reptiles, and fishes. There are two slabs of great size, extending from the floor to the ceiling of the apartment; and these slabs correspond with each other, — the reliefs of the first answering to depressions in the second. If the collection is not purchased by the citizens of the town in which it

was formed, it should be deposited in the halls of our Society. On mentioning this subject to one of our members, well known to us for his science and liberality, Hon. Nathan Appleton, he at once declared his readiness to contribute to an object so desirable; and I believe, if the Society should direct their efforts to the prosecution of this matter, a sufficient sum might be obtained to secure these valuable products of our own region.

It must be a subject of gratification to every American Naturalist to know, that the immense collection of crania, made by the late distinguished Dr. Morton, is now secured to this country, and permanently deposited in the magnificent cabinet of the Academy of Natural Sciences in Philadelphia. Secure from fire and all ordinary accidents, it there rests, an enduring monument of the industry and science of its collector, and the liberality of the city which possesses it.

Our Society has an interesting collection of crania, which, though at present small, may serve as a nucleus for the accumulation of future specimens. The subject of craniology is one of deep interest in a phrenological and physical view; and it is to be hoped that the attention of our members will be steadily directed to it, so that they may be able to avail themselves of the numerous opportunities which are

presented for securing and depositing in the Museum the crania of domestic and of foreign origin. Those of animals also should not be neglected ; and gentlemen who possess objects of this nature might be very useful to the Society by giving, for the public advantage, what has ceased to be necessary for themselves.

In the department of Comparative Anatomy there are about eighty skeletons, thirty human crania, a hundred and fifty animal crania, eighty-five jars of specimens in alcohol, twenty-five stuffed skins, and a variety of horns and loose bones.

In the department of Ornithology there are about a thousand four hundred mounted specimens, embracing nearly a thousand species. In that of Oölogy, the number of specimens previous to arrangement was about fifty ; there have since been added at least a hundred and twenty-five, making a total of a hundred and seventy-five.

In the department of Conchology there are about twenty thousand specimens, embracing about six thousand species.

In the department of Ichthyology are five hundred species. In that of Herpetology are two hundred species. Of Crustacea and Radiata there are a hundred and twenty specimens : of the former, sixty-six genera, including eighty-four species ; of the latter, twenty-four genera, and thirty-four species.

In the department of Botany there are a thousand four hundred genera, embracing six thousand species.

In the department of Mineralogy there are about two thousand specimens.

In the department of Geology and Palæontology there are a thousand four hundred species.

The department of Entomology includes not less than five thousand species, "and more especially valuable from comprising the entire collection, with the journal, made by Professor Hentz; and the labor bestowed upon their arrangement by Dr. T. W. Harris, who is now unquestionably at the head of Entomology in America."

An agreeable part of my duty on this occasion still remains to be performed. The number and value of its publications will give a reputation to the Society, which cannot be forgotten while science exists. 'The Journal of the Boston Society of Natural History began to be published in 1834, and has been continued to the present time. It contains a body of knowledge indispensable to every collection of works on Natural History, and particularly the natural history of this part of the country. The "Proceedings" of the different meetings were first published in 1841, and have

done much to maintain an interest in Natural History both within and without the Society. The regular publication of the discussions, and notice of the objects presented, is absolutely necessary to let the world know that the Society is in existence, and in steady activity. They also bring before the public, in a form which is convenient and agreeable, facts which they would not become acquainted with from scientific papers in the journal: to distant members and friends, these occasional epistles keep alive the friendship and interest, which, without them, would soon expire. These missives are eagerly sought for, and regularly perused at vast distances from the source which issues them. As the subjects which present themselves for the discussions of the Society embrace the whole region of Nature, there is no want of variety nor of interest; and those who have attended them never seemed to separate but with reluctance, and a desire to continue their investigations. I cannot omit to say that we are greatly indebted to our Secretaries, Mr. Bulfinch, Dr. Abbot, and Dr. Kneeland, for their industry and talent in collecting and publishing discussions and conversations extremely difficult from their nature to be regularly and thoroughly digested. I hope they will not be weary in their work, and that their future issues may be as satisfactory as the past.

Besides these periodical publications, our learned members have put forth most excellent volumes. President Hitchcock's Geological Survey, of Massachusetts, with the new edition of 1841, is perhaps not surpassed in interest by any scientific work that has appeared among us. His publications on the Ornithichnites alone, ensure to him an undying reputation. It is not in my power to characterize as they deserve the other reports of the Survey of this State, and therefore I will merely enumerate their titles: —

- A Report on the Trees and Shrubs growing naturally in the Forests of Massachusetts, 1846, pp. 547. With seventeen finely drawn plates. By George B. Emerson.
- Reports on the Ichthyology and Herpetology of Massachusetts. By D. Humphreys Storer, M.D., 1839, pp. 253. Plates four. [Dr. Storer is at present engaged in a new work on Ichthyology, which is expected soon to make its appearance.]
- A Report on the Ornithology of Massachusetts. By William B. O. Peabody, 1839, pp. 150.
- A Report on the Invertebrata of Massachusetts, comprising the Mollusca, Crustacea, Annelida, and Radiata. By Augustus A. Gould, M.D., 1840, pp. 373. With two hundred and thirteen figures.
- A Report on the Insects of Massachusetts injurious to Vegetation. By Thaddeus William Harris, M.D., 1841, pp. 459.
- A Treatise on some of the Insects of New England which are injurious to Vegetation. By Thaddeus William Harris, M.D. Second edition, 1852, pp. 513.
- Report on the Herbaceous Plants of Massachusetts. By Rev. Chester Dewey, 1840, pp. 277.
- A Report on the Quadrupeds of Massachusetts. By Ebenezer Emmons, M.D., 1840, pp. 86.

When we survey this noble range of volumes, emanating from members of our Society in the few years that Natural History has existed as a science among us, we cannot repress a sentiment of pride that we have such works and such men concentrated in the space of our comparatively small community.

Let me, then, be allowed to say, without being considered a vain boaster, that this Society cannot yield the palm to any similar Association with which our country is honored; and we feel encouraged to hope that, with such examples before them, our young rising colleagues may, with their increased advantages, excel the labors of those who have preceded them.

OFFICERS FOR 1853-54.

President.

JOHN C. WARREN, M.D.

Vice-Presidents.

D. HUMPHREYS STORER, M.D. | CHARLES T. JACKSON, M.D.

Corresponding Secretary.

J. ELIOT CABOT.

Recording Secretary.

SAMUEL L. ABBOT, M.D.

Treasurer.

NATHANIEL B. SHURTLEFF, M.D.

Librarian.

CHARLES K. DILLAWAY.

Curators.

SAMUEL CABOT, Jun., M.D.	<i>Of Ornithology.</i>
THOMAS T. BOUYE', Esq.	„ <i>Geology.</i>
FRANCIS ALGER, Esq.	„ <i>Mineralogy.</i>
WALDO I. BURNETT, M.D.	„ <i>Entomology.</i>
SAMUEL KNEELAND, Jun., M.D.	„ <i>Comparative Anatomy.</i>
THOMAS J. WHITTEMORE, Esq.	„ <i>Conchology.</i>
HORATIO R. STORER, Esq.	„ <i>Herpetology.</i>
THOMAS M. BREWER, M.D.	„ <i>Oölogy.</i>
SILAS DURKEE, M.D.	„ <i>Ichthyology.</i>
CHARLES J. SPRAGUE, Esq.	„ <i>Botany.</i>
J. B. S. JACKSON, M.D.	„ <i>Crustacea and Radiata.</i>

Cabinet Keeper.

CHARLES STODDER.

O F F I C E R S

FROM

THE COMMENCEMENT OF THE SOCIETY.

Presidents.

Entrance.			Exit.
1830	.	Benj. D. Greene, Esq.	1837
1837	.	George B. Emerson, Esq.	1843
1843	.	Amos Binney, Esq.	1847
1847	.	John Collins Warren, M.D.	—

Vice-Presidents.

1830	.	George Hayward, M.D.	1832
1830	.	John Ware, M.D.	1836
1832	.	Francis C. Gray, Esq.	1834
1834	.	Rev. F. W. P. Greenwood	1841
1836	.	Walter Channing, M.D.	1837
1837	.	Amos Binney, Esq.	1843
1841	.	C. T. Jackson, M.D.	—
1843	.	D. H. Storer, M.D.	—

Corresponding Secretaries.

1830	.	Gamaliel Bradford, M.D.	1834
1834	.	Amos Binney, Esq.	1837
1837	.	Epes S. Dixwell, Esq.	1843
1843	.	A. A. Gould, M.D.	1850
1850	.	J. Eliot Cabot, Esq.	—

Recording Secretaries.

Entrance.			Exit.
1830	.	D. H. Storer, M.D.	1836
1836	.	Martin Gay, M.D.	1838
1838	.	Augustus A. Gould, M.D.	1840
1840	.	Jeffries Wyman, M.D.	1841
1841	.	Frederick A. Eddy, M.D.	1842
1842	.	T. Bulfinch, Esq.	1848
1848	.	S. L. Abbot, M.D.	—

Treasurers.

1830	.	Simon E. Greene, Esq.	1832
1832	.	Amos Binney, Esq.	1834
1834	.	Epes S. Dixwell, Esq.	1837
1837	.	Ezra Weston, jun., Esq.	1839
1839	.	John James Dixwell, Esq.	1845
1845	.	Patrick T. Jackson, jun., Esq.	1850
1850	.	Nathaniel B. Shurtleff, M.D.	—

Librarians.

1830	.	Seth Bass, Esq.	1832
1832	.	Charles Amory, Esq.	1833
1833	.	Charles K. Dillaway, Esq.	—

Curators.

1830	.	Francis C. Gray, Esq.	1832
1830	.	Walter Channing, M.D.	1831
1830	.	Edward Brooks, Esq.	1831
1830	.	Amos Binney, jun., Esq.	1832
1830	.	Jos. W. McKean, M.D.	1835
1830	.	George B. Emerson, Esq.	1837
1830	.	Francis Alger, Esq.	1834
1830	.	J. S. Copley Greene, Esq.	1832

Curators—Continued.

Entrance.		Exit.
1831	Joshua B. Flint, M.D.	1832
1831	Augustus A. Gould, M.D.	1845
1832	Winslow Lewis, jun., M.D.	1839
1832	William B. Fowle, Esq.	1835
1832	Clement Durgin, Esq.	1833
1832	G. W. Otis, M.D.	1835
1833	Charles T. Jackson, M.D.	1841
1834	John B. S. Jackson, M.D.	—
1835	T. W. Harris, M.D.	1848
1835	J. E. Teschmacher, Esq.	1852
1835	Martin Gay, M.D.	1836
1836	D. H. Storer, M.D.	1843
1837	N. B. Shurtleff, M.D.	1849

In 1838 the Curatorships were assigned to special departments for the first time; *e. g.*:—

Entrance.		Exit.
1838	T. William Harris, M.D. — Of Entomology	1848
1838	Winslow Lewis, M.D. — Of Mazology	1839
1838	D. H. Storer, M.D. — Of Ichthyology and Herpetology	1843
1838	Charles T. Jackson, M.D. — Of the Mineral and Geological Collection of the State	1841
1838	Martin Gay, M.D. — Of the Mineral and Geological Collection of the Society	1842
1838	J. E. Teschmacher, Esq. — Of Botany	1852
1838	Thomas M. Brewer, M.D. — Of Ornithology	1840
1838	Nathaniel B. Shurtleff, M.D. — Of Comparative Anatomy	1849
1839	Jeffries Wyman, M.D. — Of Mazology	1840
1840	M. S. Scudder, M.D. — Of Ornithology	1841
1841	A. A. Gould, M.D. — Of Conchology	1843
1841	T. Bulfinch, Esq. — Of State Mineral Collection	1842
1841	J. L. Abbot, jun., Esq. — Of Ornithology	1844
1842	T. T. Bourvé, Esq. — Of Geology	—
1842	Martin Gay, M.D. — Of Mineralogy	1848

Curators — Continued.

Entrance.		Exit.
1843	Jeffries Wyman, M.D. — Of Ichthyology and Herpetology	1848
1843	A. E. Belknap, Esq. — Of Conchology	1844
1844	A. A. Gould, M.D. — Of Conchology	1845
1844	S. Cabot, jun., M.D. — Of Ornithology	—
1845	Edward Tuckerman, Esq. — Of Conchology	1846
1846	John Bacon, jun., M.D. — Of Conchology	1848
1848	W. I. Burnett, M.D. — Of Entomology	—
1848	John Bacon, jun., M.D. — Of Mineralogy	1849
1848	Jeffries Wyman, M.D. — Of Herpetology	1851
1848	W. O. Ayres, Esq. — Of Ichthyology	1852
1848	William Reed, M.D. — Of Conchology	1851
1849	Francis Alger, Esq. — Of Mineralogy	—
1849	Samuel Kneeland, jun., M.D. — Of Comparative Anatomy	—
1851	William Stimpson, Esq. — Of Conchology	1853
1851	Horatio R. Storer, Esq. — Of Herpetology	—
1852	Thomas M. Brewer, M.D. — Of Oölogy	—
1852	Silas Durkee, M.D. — Of Ichthyology	—
1852	Charles J. Sprague, Esq. — Of Botany	—
1852	William O. Ayres, Esq. — Of Crustacea and Radiata	1853
1853	T. J. Whittemore, Esq. — Of Conchology	—
1853	J. B. S. Jackson, M.D. — Crustacea and Radiata	—

Cabinet Keepers.

1834	. . . .	Estes Howe	1835
1835	. . . .	Nathaniel B. Shurtleff, M.D.	1837
1837	. . . .	T. M. Brewer, M.D.	1838
1838	. . . .	Jeffries Wyman, M.D.	1839
1839	. . . .	Samuel Cabot, jun., M.D.	1840
1840	. . . .	Samuel L. Abbott, jun., M.D.	1841
1841	. . . .	T. T. Bouvé, Esq.	1842
1842	. . . .	Henry Bryant, Esq.	1844
1844	. . . .	H. J. Bigelow, M.D.	1847
1847	. . . .	Samuel Kneeland, jun., M.D.	1849
1849	. . . .	C. C. Sheafe, Esq.	1852
1852	. . . .	Charles Stodder, Esq.	—

P A T R O N S.

Nathan Appleton.
 Samuel Appleton.
 William Appleton.
 F. H. Appleton.
 T. G. Appleton.
 Charles Amory.
 Samuel Austin, jun.
 John A. Binney.
 Mrs. Amos Binney.
 Miss Mary G. P. Binney.
 Miss Emeline Binney.
 S. Batchelder.
 Peter C. Brooks.
 John Bryant.
 James Brown.
 W. S. Bullard.
 Henry Cabot.
 Samuel Cabot.
 J. Chickering.
 John P. Cushing.
 Henry Cross.
 P. R. Dalton.
 E. W. Dana.
 James Davis, jun.
 J. J. Dixwell.
 J. W. Edmands.
 Richard Fletcher.
 J. M. Forbes.
 J. L. Gardner.
 B. A. Gould.
 Ozias Goodwin.
 F. C. Gray.
 Horace Gray.
 John C. Gray.
 Benjamin D. Greene.
 J. S. Copley Greene.
 Franklin Haven.
 Augustine Heard.
 Samuel Hooper.

P. T. Homer.
 Charles Jackson.
 P. T. Jackson.
 Miss A. P. Jones.
 George H. Kuhn.
 Abbot Lawrence.
 Thomas Lee.
 Benjamin Loring.
 F. C. Loring.
 John A. Lowell.
 F. C. Lowell.
 George W. Lyman.
 James K. Mills.
 Charles H. Mills.
 T. H. Perkins.
 Edward D. Peters.
 Edward B. Phillips.
 Pascal P. Pope.
 Miss S. P. Pratt.
 George Pratt.
 Josiah Quincy, jun.
 Henry B. Rogers.
 William Ropes.
 Ignatius Sargent.
 David Sears.
 George C. Shattuck.
 Philo S. Shelton.
 William Shimmmin.
 M. H. Simpson.
 Francis Skinner.
 W. W. Stone.
 William Sturgis.
 J. E. Thayer.
 John C. Warren.
 T. B. Wales.
 John Welles.
 Thomas Wigglesworth.
 J. H. Wolcott.

M E M B E R S.

Life Members.

Thomas Bartlett.
G. B. Blake.

Charles K. Dillaway
Leonard M. Parker.

Honorary Members.

Louis Agassiz	Neufchatel, Switzerland.*
John James Audubon	New York.
Elie de Beaumont	Paris.
William Buckland	Oxford University.
Thomas Bell	London.
H. M. Ducrotay de Blainville	Paris.
Alexandre Brongniart	Paris.
C. Lucien Buonaparte	Bordentown, N. J.
Adolph Brongniart	Paris.
Auguste P. de Candolle	Geneva.
John George Children, F.R.S.	London.
C. G. B. Daubeney	Oxford University.
Benjamin Delessert, Baron	Paris.
John Edward Gray	London.
Asa Gray, Prof.	Cambridge, U. S.
Edmund Griffith, F.R.S.	London.
William McGillivray, F.R.S.E.	Edinburgh.
Edward Hitchcock	Amherst College.
William Jackson Hooker, Bart.	Glasgow.
J. C. Henslow	Cambridge University.
Auguste St. Hilaire	Paris.
Leonard Jenyns	_____
William Jardine	London.

* Now of Harvard University, Cambridge.

Honorary Members — Continued.

Robert Jameson	Edinburgh University.
Adrian de Jussieu	Paris.
L. C. Kiener	Paris.
Isaac Lea	Philadelphia.
Sir Charles Lyell	London.
John Lindley	London.
Heinrich Friedrich Link	Berlin.
W. Sharp McLeay, F.R.S.	London.
Gideon A. Mantell	Brighton, Eng.
Sir R. T. Murchison	London.
C. F. P. von Martius	Munich.
Richard Owen	London.
John Richardson	London.
Achille Richard	Paris.
Henry D. Rogers, Prof.	Philadelphia.
William B. Rogers, Prof.	Charlottesville, Va.
Benjamin Silliman	Yale College.
William Swainson	London.
A. Sedgewick	Cambridge University.
C. U. Shepard	Charleston, S. C.
Edward Spach	Aide Naturaliste, &c.
D. F. L. von Schectendal, P.D.	Halle.
John Torrey	New York.
J. O. Westwood, F.R.S.	London.
William Whewell	_____
William Yarrell	London.

Corresponding Members.

THE ASTERISK (*) DENOTES DECEASED.

John L. Alexander	Hubbardstown.
Francis Archer	Liverpool, Eng.
J. G. Anthony	Cincinnati.
C. B. Adams, Prof.	Middlebury Coll., Vt.
Nath. E. Atwood	Provincetown, Mass.
Edward G. Bumstead	Cuba, W. I.
John Bachman	Charleston, S. C.
George Brown	Beverley, Mass.

Corresponding Members — Continued.

Benj. B. Brown	St. Louis, Mo.
Henry Blood	New Orleans.
J. J. Ballastier	Singapore.
Ignatius Bonavita	—
Francis Boott	London.
Lewis C. Beck	New Brunswick, N. J.
J. W. Bailey	Westpoint, N. Y.
Joseph Barratt, M.D.	Middletown, Ct.
Charles Booth	—
Charles Cramer	St. Petersburg.
Joseph P. Couthouy	—
F. W. Cragin	Surinam, S. A.
Timothy A. Conrad	Philadelphia.
A. W. Chapman	Quincy, Flor.
John McClelland, M.D.	Calcutta.
S. C. Clark	Chicago, Ill.
A. Clapp	New Albany, Ind.
J. L. Le Conte	New York.
J. H. Carlton	U. S. Army.
John Le Conte, Prof.	Athens, Ga.
D. Christy, M.D.	—
John A. Clay	—
William Cairns	Hillsborough, N. B.
Theodore Cantor, M.D.	Calcutta.
Chester Dewey	Rochester, N. Y.
John E. Dekay	New York.
*John Diell	Honolulu.
Edward Doubleday	Epping, Eng.
Samuel L. Dana	Lowell, Mass.
C. C. Douglass	Detroit, Mich.
James Deane, M.D.	Greenfield, Mass.
Rev. William Dean	Missionary to China.
W. W. Dickeson, M.D.	Natchez, Miss.
Edward Desor	Neufchatel.
Henry G. Dalton, M.D.	Demarara.
Rajinder Dalt	Calcutta.
W. E. Deering	Augusta, Ga.
Ebenezer Emmons	Williams College.
*William S. Emerson	Alton, Illinois.

Corresponding Members — Continued.

John M. Earle	Worcester, Mass.
James B. Forsyth	Sandwich, Mass.
J. C. Freemont	U. S. Army.
J. G. Forshey	Vidalia, La.
Robert Foulis	St. Johns, N. B.
Thomas A. Greene	New Bedford.
Pablo de la Gironniere	Manilla.
Joseph Gené	Turin.
Lewis R. Gibbs	Charleston, S. C.
Robert W. Gibbs	Columbia, S. C.
John Gundlach	Cardenas, Cuba.
Richard Harlan	Philadelphia.
Samuel P. Hildreth	Marietta, Ohio.
John E. Holbrook	Charleston, S. C.
Edmund Harris	Morristown, N. J.
James Hall	New York.
S. Stehman Haldeman	Marietta, Pa.
Albert Hopkins	Williams College.
John L. Hayes	Portsmouth, N. H.
Douglass Houghton	Detroit.
Oliver P. Hubbard	Dartmouth College.
•Frederick Hall, LL.D.	Washington, D. C.
T. S. Hunt	Montreal, U. C.
J. C. Jay	New York.
J. L. Jones, M.D.	Athens, Ga.
Henry King, M.D.	Washington, D. C.
Leo Lesquereux	Columbus, Ohio.
Benjamin Lincoln	Burlington, Vt.
J. C. Loudon	London.
Rev. R. T. Lowe	Madeira.
Rev. J. L. Linsley	Stratford, Ct.
Joseph Leidy, M.D.	Philadelphia.
Rev. Peter Lesley	Milton, Mass.
Señor Juan Lembeye	Cardenas, Cuba.
Samuel George Morton	Philadelphia.
Chevalier Magnetto	Gibraltar.
D. S. Macaulay	Tripoli.
Owen Mason	—
Frederick Miller	New Bedford.

Corresponding Members — Continued.

Rev. Francis Mason	Burmah.
E. Mitchell, Prof.	Chapel Hill, N. C.
J. W. Mighels, M.D.	Portland, Me.
Charles H. Matthews	Sault de Ste. Marie.
Andrew Nichols, M.D.	Danvers.
J. G. Norwood, M.D.	Madison, Ind.
Josiah C. Nott, M.D.	Mobile, Ala.
William Oakes	Ipswich, Mass.
C. H. Olmsted	East Hartford, Conn.
Charles Pickering	Philadelphia.
*W. B. O. Peabody	Springfield.
Placido Portal	Palermo.
Richard Parnell	—
J. S. Phillips	Philadelphia.
H. C. Perkins, M.D.	Newburyport.
Jacob Porter, M.D.	Plainfield, Ct.
George A. Perkins, M.D.	Cape Palmas, Africa.
J. T. Plummer, M.D.	Richmond, Ind.
Edward E. Phelps, M.D.	Windsor, Vt.
Count Francis de Pourtales	Neufchatel.
Moses H. Perley	St. Johns, N. B.
Isaac Ray	Eastport, Me.
J. N. Reynolds	New York.
Edmund Ravenel	Charleston, S. C.
J. J. Robertson	Constantinople.
John L. Russell	Chelmsford, Mass.
Thomas Reid	Tunis.
James Robbins, M.D.	North Chester.
Richard H. Swett, dit Dupont	Paris.
James O. Savage	Cuba.
Salvatore Scuderi	Catania.
John Stoddard, Bart.	Malta.
Benjamin Silliman, jun.	Yale College.
Thomas S. Savage	Cape Palmas, W. Afr.
Isaac Sprague	Hingham.
Increase S. Smith	Hingham.
J. Lawrence Smith, M.D.	Charleston, S. C.
Benjamin A. Stanwood	Cleveland, Ohio.
David S. C. H. Smith, M.D.	Providence, R. I.

Corresponding Members — Continued.

C. A. Spenser	Canastota, N. Y.
J. G. Totten	U. S. Army.
James Trudeau	Philadelphia.
M. Tuorney	Petersburgh, Va.
Henry D. Thoreau	Concord, Mass.
Rev. P. Tocque	_____
William Vaux	_____
William W. Wood	Manilla.
J. P. Wetherill	Philadelphia.
Charles Wilkes	U. S. Navy.
B. C. L. Wailes	Washington, Miss.
Henry Wheatland, M.D.	Salem, Mass.
Charles Whittlesey	Cleveland, Ohio.
Leroy M. Yale	Holmes's Hole, Mass.
Charles Zimmerman	Columbia, S. C.

Members.

Abbe, Edward P.	Bigelow, Horatio.
Abbot, Henry W.	Bigelow, Samuel L.
Abbot, Joseph Hale.	Binney, Amos.
Abbot, Samuel L.	Blake, John H.
Adams, Horace W.	Blanchard, A. H.
Adams, Solomon.	Boott, William.
Alger, Francis.	Borland, M. Wolsey.
Amory, T. C. jun.	Borland, J. Nelson.
Appleton, William, jun.	Bouvé, Thomas T.
Ayres, John.	Bowditch, Henry J.
Ayres, William O.	Bowditch, J. Ingersoll.
Bacon, John, jun.	Bowditch, William I.
Barnard, James M.	Brewer, Thomas M.
Barrett, Samuel.	Briggs, Robert, jun.
Batchelder, Eugene.	Brigham, Elijah D.
Belknap, Andrew E.	Brooks, Charles.
Bemis, Jonathan W.	Brooks, Edward.
Bemis, Samuel A.	Brooks, Henry C.
Bethune, George A.	Bryant, Henry.
Bethune, John M.	Bulfinch, Thomas.
Bigelow, Henry J.	Bumstead, Freeman J.

Burnett, Waldo I.
 Cabot, Samuel, jun.
 Cabot, J. Eliot.
 Cabot, Edward C.
 Cary, George B.
 Cary, Thomas G., jun.
 Channing, William F.
 Clark, Henry G.
 Codman, Edward.
 Codman, William W.
 Collamore, George W.
 Coolidge, Algernon.
 Cooke, Josiah P. jun.
 Cornell, William M.
 Cotton, N. Davies.
 Curtis, Josiah.
 Cushing, Thomas P.
 Dalton, J. C. jun.
 Darracott, George.
 Davis, F. W.
 Dearborn, Edmund B.
 Derby, George.
 Dexter, George M.
 Dix, John H.
 Dixon, B. Homer.
 Durkee, Silas.
 Dutton, John.
 Dwight, Edmund.
 Eliot, Samuel A.
 Ellis, Calvin.
 Emerson, George B.
 Emmons, Stephen.
 Fenno, J. B.
 Flagg, Josiah F.
 Flint, John.
 Flint, Waldo.
 Forbes, R. B.
 Freeman, Francis.
 Gardiner, William H.
 Gerard, Charles.
 Gould, Augustus A.
 Gould, Benj. A. jun.
 Gray, Horace, jun.
 Gray, John H.
 Gregerson, J. B.

Guild, George F.
 Hale, Charles.
 Hale, Edward E.
 Hall, John K.
 Harwood, Daniel.
 Hayden, John C.
 Hayes, Augustus A.
 Hayward, George.
 Hayward, George, jun.
 Heard, John T.
 Heaton, George.
 Hendee, Charles J.
 Henshaw, John Andrew.
 Hollis, Thomas.
 Holmes, Oliver W.
 Homans, Charles D.
 Hosmer, Hiram.
 Hovey, Charles F.
 Inches, Henderson.
 Jackson, Charles T.
 Jackson, John B. S.
 Jeffries, George J.
 Joy, Joseph.
 Keep, Nathan C.
 Kendall, B. F.
 Kettell, John B.
 Kneeland, Samuel, jun.
 Kuhn, George H.
 Lawrence, James.
 Lee, Henry.
 Lewis, Winslow.
 Lodge, Giles H.
 Loring, Caleb W.
 Lothrop, Samuel K.
 Lowe, James P.
 Lyman, Arthur S.
 Lyman, George H.
 Lyman, Theodore.
 Manley, J. K.
 May, F. U. G.
 Minot, Francis.
 Morland, William W.
 Morse, Frank.
 Morse, Henry D.
 Oliver, Henry K. jun.

Page, Calvin G.
 Parker, Charles H.
 Parker, J. M. G.
 Parker, H. M.
 Parker, Theodore.
 Parkman, Samuel.
 Parsons, Theophilus.
 Perkins, William.
 Perry, Marshall S.
 Pickering, Charles.
 Prime, Temple.
 Putnam, Charles G.
 Quincy, Josiah.
 Randall, John W.
 Reed, Caleb.
 Reed, Sampson.
 Reed, William.
 Restiaux, Thomas.
 Reynolds, Edward.
 Reynolds, John P.
 Robinson, Luther.
 Ross, Thomas.
 Russell, Le Baron.
 Sargent, Henry I.
 Shattuck, George C.
 Shaw, Benjamin S.
 Shaw, Francis G.
 Shaw, G. Howland.
 Shaw, Lemuel, jun.
 Sheafe, Charles C.
 Sherwin, Thomas.
 Shurtleff, Nathaniel B.
 Simmons, Theodore A.
 Sprague, Charles J.
 Sprague, Seth L.
 Stanwood, Lemuel.

Stearns, John, jun.
 Stevenson, John H.
 Stimpson, William.
 Stodder, Charles.
 Stone, James W.
 Storer, D. Humphreys.
 Storer, Horatio R.
 Story, Franklin H. jun.
 Teschmacher, James E.
 Thatcher, William S.
 Thayer, William H.
 Thornton, J. Wingate.
 Tucker, Joshua.
 Tuckerman, Edward.
 Wainwright, Peter.
 Ward, Henry A.
 Ware, John.
 Warner, Herman J.
 Warren, Asa C.
 Warren, G. Washington.
 Warren, Henry.
 Warren, J. Mason.
 Weld, Moses W.
 Welles, David A.
 Weston, A. B.
 Whittemore, Thomas J.
 Whitwell, Frederick A.
 Wightman, Joseph M.
 Wigglesworth, Edward.
 Wilder, Marshall P.
 Williams, George F.
 Williams, M. B.
 Winslow, Edward.
 Wyman, Jeffries.
 York, Jasper H.
 Young, Joshua.

The difficulty of ascertaining the titles of members, and especially of foreign members, has compelled us to desist from the attempt to render the Catalogue, in this respect, complete.

COUNTWAY LIBRARY



HC 1Y6D /

